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REMARKS

Applicant presents this Amendment document responsive to the Office Action mailed November 8, 2007. In light of the foregoing amendments and the following remarks, Applicant respectfully requests reconsideration and withdrawal of the rejections made.

I. Section 112 Rejections

The Office Action includes a rejection of claims 10 and 20 as allegedly failing to comply with the definiteness requirement of Section 112, second paragraph. In support of these rejections, it is contended that "[i]t is not clear what heat resistance is encompassed by a 'high heat resistance.'" According to the Examiner, "[t]he phrase is indefinite because the phrase has a different meaning to different individuals based on different interpretations."

Respectfully, that is not the proper test. Rather, "[a]cceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification." MPEP § 2173.05(b). Accordingly, it does not matter if the phrase, when read in a vacuum, might have a "different meaning to different individuals based on different interpretations." Instead, it matters whether a skilled artisan would fail to understand what is claimed upon reviewing Applicant's specification, which has not been established.

In maintaining the rejection, the Examiner contends that Applicant failed to provide a definition of what "high heat resistance" means. Respectfully, as evidenced by the MPEP section cited above, it is not necessary for the Applicant to provide a definition in order for a claim term to be definite, since the meaning that would be understood based on the specification is controlling. Moreover, the Examiner's contention that the term "high heat resistance" is "subjective" is irrelevant. That an interpretation of claim terminology involves the subjective understanding of a skilled artisan based on the teachings of the accompanying specification does not render it indefinite.

The Examiner's position also flies in the face of numerous issued patents claiming "high heat resistance," such as U.S. Patent No. 7,165,677 (Claim 12 - "a film or paint having high heat resistance is provided"); U.S. Patent No. 7,161, 125 (Claim 1 - "wherein said transfer mechanism is formed of a material that does not have high heat-resistance and fire-resistance"); and U.S. Patent No. 7,138,610 (Claim 12 - wherein the at least one heat insulating member is made of glass material or ceramic material having a high heat resistance"). These are but a few examples of the hundreds of issued patents having the same limitation used by the Applicant to

describe its invention. In light of the foregoing and the teachings in the Applicant's specification as to how high heat resistance may be achieved, reconsideration of the rejections of claims 10 and 20 under Section 112 of the Patent Act is respectfully requested.

II. Section 102 Rejections

Turning to the rejection of claim 25 as anticipated, Applicant challenged the Examiner's purported factual finding that either U.S. Patent No. 5,616,408 to Oleszczuk et al. ("Oleszczuk") or U.S. Patent No. 5,804,512 to Lickfield et al. ("Lickfield") discloses the exact same invention claimed. In making these rejections, the Examiner <u>never</u> establishes that either cited reference discloses the three claimed layers, but rather arbitrarily and capriciously speculates that a single mass of fibers can be considered as a "multi-layered article" (despite having taken precisely the opposite position in a prior Action; see Office Action dated July 11, 2005, p. 3, para. 5, lines 4-5, wherein the Examiner admitted that "neither Oleszczuk nor Lickfield specifically mentions a third layer of wet processed mat") (emphasis added).

Regardless, Applicant now amends claim 25 to require "discrete" layers, as well as that the bicomponent fibers bond the fibers together within each individual layer of the mat. Support for this amendment is found in Applicant's specification, including in Figure 1 and paragraph 29 of the published application.

Even if Oleszczuk or Lickfield disclose a single layer including bicomponent fibers, there is no teaching that the bicomponent fibers bond the fibers within each individual layer of the mat, as well as layers that are directly bonded together. Any assertion that is it "possible" that such occurs in the products of these references is mere speculation, and cannot support a finding of anticipation. Scaltech, Inc. v. Retec/Tetra, LLC, 178 F.3d 1378, 1384, 51 USPQ2d 1055, 1059 (Fed. Cir. 1999) (holding that inherency is not established by "probabilities or possibilities"). Moreover, these references do not disclosed the "discrete" layers, as claimed. Accordingly, withdrawal of the anticipation rejections of claim 25 based on Oleszczuk or Lickfield is in order.

The rejections of claims 1-5, 11, 12, and 25 as anticipated by U.S. Patent No. 6,022,818 to Welchel et al. ("Welchel") are also maintained. In making these rejections, it is admitted that Welchel's teaching is limited to air-laid mats, but the Examiner nonetheless contends that the mat of Welchel "is identical to or only slightly different from the claimed article (wet-laid)." In response to Applicant's challenge to this assertion as being unsupported by any evidence in the

record, the Examiner states that such is "common sense," and cites definitions of the terms "air-laid" and "wet-laid" as supporting this contention.

A finding of anticipation is proper "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a <u>single prior art reference</u>" MPEP § 2131.01 (Emphasis Added). "Normally, only one reference should be used" in making an anticipation rejection. *Id.* However, reliance on a second reference in support of an anticipation rejection has been held proper when it is cited to: (1) prove the primary reference contains an enabled disclosure; (2) explain the meaning of a term used in the primary reference; or (3) show that a characteristic not disclosed in the reference is inherent. *Id.*

The definition does not appear to be relied on to prove that Welchel contains an enabled disclosure, or to show that a characteristic not disclosed in that reference is inherent. Thus, in order for it to be properly relied upon, it must be proffered to "explain the meaning of a term used in" Welchel. However, the Examiner does not rely on this definition to "explain the meaning of" air laid, but rather to show that a wet laid mat is allegedly "identical to or only slightly different from the claimed article (wet-laid)." Accordingly, reliance on this definition as a "secondary reference" in support of an anticipation rejection is improper.

Regardless, the cited definition does not support the proposition advanced, but instead favors the Applicant's interpretation. Nowhere do the definitions cited establish that an air laid mat is <u>identical</u> to or "only slightly different from" a wet processed mat. Rather, the definitions provided support Applicant's contention that there is indeed a difference in the product formed (namely, wet processing "provides an insulating layer with a more consistent weight per unit area" and also "provides more intimate mixing of the fiber blends and more random fiber orientation"; see Applicant's specification, p. 7, second full paragraph). The definitions do not in any way compare the resulting mats, or provide any insight into their relative properties. Hence, this submission does not and cannot qualify as the requisite "substantial evidence" to support the Examiner's finding that Welchel discloses the "exact same invention" being claimed.

According to the Examiner, "the patentability of a product does not depend on its method of production." This position is maintained, despite the failure of the Examiner to address or distinguish the holdings of precedential decisions supporting that a "wet processed mat" refers to a product per se, and does not recite any method or process steps. See 3M Innovative Props. Co. v. Avery Dennison Corp., 350 F.3d 1365, 1371-74 69 USPQ2d 1050 (Fed. Cir. 2003) (holding

that "multiple embossed patterns" did not import a process limitation into a structural claim); Hazani v. U.S. International Trade Commission, 44 USPQ2d 1358 (Fed. Cir. 1997) (holding that the limitation "chemically engraved" in a claim "describes the product more by its structure than by the process used to obtain it."); In re Garnero, 412 F.2d 276, 278-79, 162 USPQ 221, 223 (CCPA 1969) (". . . the recitation of the particles as 'interbonded one to another by interfusion between the surfaces of the perlite particles' is as capable of being construed as a structural limitation as 'intermixed,' 'ground in place,' 'press fitted,' 'etched,' and 'welded,' all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations").

Disregarding these precedential decisions, the Examiner again cites *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983), which Applicant distinguished in the prior response, and continues to assert that the present claims are "product-by-process" claims (which allegedly justifies shifting the burden of proving patentability to the Applicant). However, the present claims recite a liner/insulator having multiple layers of wet processed mat directly bonded together. Thus, unlike in *Marosi*, the claims at issue are not "product-by-process" claims at all, but rather recite products in structural terms (claims 1-12 and 24-25) or methods of manufacture (claims 13-23). *Hazani v. U.S. International Trade Commission*, supra, is thus directly on point and supports the patentability of the instant claims.

III. Section 103 Rejections

Applicant also respectfully traverses the rejections of claims 1-5, 9-15, 19-22, and 24-25 based on the combination of Oleszczuk et al. and Lickfield et al. as primary references, in further view of Welchel. The Examiner in a prior Action "admits that layers (14) and (16) [Oleszczuk et al. and Lickfield et al.] are not directly bonded," but nonetheless concludes that one of these layers "would be directly bonded to another layer of wet processed mat." This is because, according to the Examiner, "Oleszczuk et al. and Lickfield et al. each disclose that additional 'supporting' (wet processed bicomponent staple fiber mat) layers may be added to the article . . . (Office Action dated 11/8/07, p. 17, last sentence).

Absolutely no evidence in the record supports this conclusion. Olezczuk et al. and Lickfield et al. do <u>not</u> in any of the passages cited disclose that an additional "wet processed mat" layer may be added to the article, let alone <u>directly bonded to another wet processed mat layer</u> as required by the claims at issue. While these references include an omnibus statement

regarding the possible addition of unspecified layers in an unspecified manner, this hardly qualifies as the requisite substantial evidence necessary to support a proper obviousness rejection. See In re Zurko, 59 USPQ2d 1693 (Fed. Cir. 2001) (recognizing the need for "some concrete evidence in the record in support of" findings of obviousness). Stated another way, no "reasonable mind might accept as adequate" the teachings of Olezczuk et al. and Lickfield et al. as to the addition of various additional layers as supporting the conclusion advanced by the Examiner that it would as a result of the cited teachings be obvious to directly bond a wet processed mat of a different fiber formulation to either of the layers 14, 16 disclosed in these references.

Likewise, the requisite substantial evidence does not support the ultimate conclusion reached as to the obviousness of the inventions of these claims. The Examiner concludes based on the teachings of the cited references that a skilled artisan would have found it obvious to "directly bond an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation . . . because the additional wet processed bicomponent staple fiber mat supporting layer would allow the surface to be more aesthetically pleasing to the touch and more comfortable to the user" (Office Action of 11/8/07, p. 18). The difficulty with this position is that no evidence in the record supports the conclusion that adding a wet processed mat layer having a different fiber formulation would produce the stated result. As implicitly admitted by the Examiner, Welchel does not mention any wet processed mat layer directly bonded to another. wet processed mat layer of the type claimed having a different fiber formulation, so it cannot support the conclusion reached. Moreover, the Examiner expressly admits that Olezczuk et al. and Lickfield et al. "do not appear to specifically mention at least one adjacent additional layer of different fiber formulation" (Id. at p. 5). The Examiner's conclusion is thus a non sequitur, since the fact that Welchel teaches that a different fiber diameter or denier may create a surface more "aesthetically more pleasing to the touch" would not in any way provide a reason for a skilled artisan to directly bond two wet processed mats having different fiber formulations together as required by the claim.

Turning to method claim 13 alone, it specifically requires the step of "applying sufficient heat and pressure to said first and second layers of mat to bond said first layer and said second layer directly together and form said liner/insulator." As admitted by the Examiner, the primary references do not in any way teach directly bonding layers of wet processed mat, as claimed.

Hence, they cannot possibly teach the step of "applying heat and pressure" to two such layers in order to bond them.

In response, the Examiner disagrees, stating that "Oleszczuk and Lickfield each disclosed that the layers may be thermally bonded." Respectfully, these references fail to mention a liner/insulator including first and second layers of wet processed mat directly bonded together, wherein the first and second layers have different fiber formulations. Accordingly, even if the teachings of these references are combined with Welchel, which fails to disclose the claimed wet processed mat with layers having different fiber formulations, they would in no way disclose all limitations of process claim 13, as required for a *prima facie* case of obviousness. See MPEP 2143.03 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.").

With regard to claims 6-8 and 16-18, Oleszczuk et al. and Lickfield et al. fail to mention a liner/insulator including first and second layers of wet processed mat directly bonded together, wherein the first and second layers have different fiber formulations. Welchel, as described above, does not supply this missing teaching, either, and Insley does nothing to address this shortcoming of the other references. Also, the Examiner's stated reason for making the combination ("successfully practicing the invention") does not qualify as objective evidence of the requisite reason for arriving at the claimed inventions. Accordingly, a *prima facie* case of obviousness is lacking with respect to claims 6-8 and 16-18.

As for claim 23, which stands rejected as obvious based on the teachings of <u>five</u> different references, the Oleszczuk, Lickfield, and Welchel references fail to teach or suggest a liner/insulator including first and second layers of wet processed mat directly bonded together where those first and second layers have different fiber formulations. Bansal and Malaney do nothing to address this shortcoming of the other references. Accordingly, claim 23 patentably distinguishes over the cited art and should also be allowed.

As for dependent claim 24, the Examiner contends that its terms are met by the three references cited against claim 1, contending that the "ordinary meaning" of the word "composition" is "general makeup." No evidence cited by the Examiner supports this broad definition, or establishes that it is consistent with the meaning that would be understood by a skilled artisan. See In re Cortright, 165 F.3d 1353, 1358, 49 USPQ2d 1464 (Fed. Cir. 1999) ("Although the PTO must give claims their broadest reasonable interpretation, this interpretation

must be consistent with the one that those skilled in the art would reach.") (emphasis added). Rather, as demonstrated by evidence cited by the Applicant and the present specification, "composition" would be understood to mean that the fibers have not merely a different size, but rather comprise different elements or compounds. Applicant accepts the Examiner's invitation to "provide applicant the cited dictionary definition upon request," but cautions that "[i]ndiscriminate reliance should not be placed on layman's definitions found in dictionaries."

In response to the Examiner's assertion that claim 24 "simply states that the layers have different fiber compositions, not <u>necessarily different from each other</u>." Applicant presents an amendment to require that: (1) the first layer has a first fiber composition and the second layer has a second fiber composition; and (2) the first fiber composition is different from the second fiber composition. None of the cited references teach providing first and second layers with different fiber compositions in the manner claimed. Accordingly, allowance of this claim is in order.

Claims 1-5, 11-15, 21-22, and 25 are further rejected as obvious in light of Welchel "in view of anyone of" Holm, Cederblad, or D'Acchioli. While it is admitted that the primary Welchel reference does not disclose the claimed wet processed layers of mat directly bonded together, the secondary references purportedly disclose "that it is known in the art to form mats by a wet-laid or dry-laid process." Based on this teaching, the Examiner posits that it would have been obvious to make the claimed mats "from any suitable nonwoven material, such as dry laid or wet laid, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics" (final Office Action, p. 11).

In an effort to support the rejection, the Examiner cites to several dated decisions allegedly supporting the contention that "[t]he substitution of known equivalent structures involves only ordinary skill in the art" (Office Action of 11/8/07, pp. 23-24). The first decision, In re Fout, 675 F.2d 297, 301 (C.C.P.A. 1982), held that an "[e]xpress suggestion to substitute one equivalent for another need not be present to render such substitution obvious." Hence, it

¹ Ex parte Kumagai, 9 USPQ2d 1642 (BPAI1988) (citing In re Salem, 533 F.2d 676, 193 USPQ 513, 518 (CCPA 1977) with approval and noting that "the lay definition of 'discrete' relied upon by the examiner does not even suggest its applicability to [this] technical area.")

does not appear to stand for the broad proposition of law being advanced by the Examiner. The same is true of the second decision cited, which merely provides that: "[t]he issue of obviousness is not determined by what the references expressly state but by what they would reasonably suggest to one of ordinary skill in the art." In re Siebentritt, 54 C.C.P.A. 1083, 1085 (C.C.P.A. 1967). The final decision, In re Ruff, 118 USPQ 343 (CCPA 1958), was decided long before the landmark decision of the U.S. Supreme Court in Graham v. John Deere Co. of Kansas City, 383 U.S. 1 (U.S. 1966), the viability of which was recently affirmed in KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ 1385 (U.S. 2007).

Even if the dated holdings relied upon control on the present facts (which is doubtful), the problem is that nothing in the record (including the definitions cited by the Examiner) establishes that air laid and wet processed mats are "known equivalent structures." Aside from the remarkable lack of any evidence supporting the Examiner's position, Applicant specifically claims multiple layers of wet processed mat directly bonded together, and the primary reference relied upon (Welchel) teaches an air-laid mat. Holm, Cederblad, or D'Acchioli do not even remotely disclose or teach multiple layers of wet processed mat directly bonded together made of the claimed thermoplastic polymer staple fibers and thermoplastic bicomponent fibers, or that such fibers when wet processed would be suitable for forming a multi-layered insulator. Indeed, an expressly stated goal of the Holm patent is to produce an article of natural fibers (see col. 1, lines 66-67), so it actually teaches away from the arrangement of Welchel. For these reasons, the Examiner has failed to establish the "known equivalence" of wet processed and air laid mats, as well as to set forth a *prima facie* case that it would be obvious to arrive at the claimed inventions based on the cited combination of references.

Applicant's arguments that the Holm reference "teaches away" from the claimed invention are challenged because "the rejection does not suggest using the fiber material disclosed by Holm" (Office Action, p. 24). Regardless, a reference must be considered "as a whole," including any portion that would lead a skilled artisan away from the claimed invention. MPEP § 2141.02 (prior art must be considered in its entirety, including disclosures that teach away from the claims). In making the rejection, the Examiner cannot simply disregard that Holm disparages the use of thermoplastic fibers, and would therefore lead a skilled artisan in a direction away from the Applicant's invention. See, e.g. In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130 (Fed. Cir. 1994) ("A reference may be said to teach away when a person of

ordinary skill, upon reading the reference, would be . . . led in a direction divergent from the path that was taken by the applicant.").

A secondary reason that a prima facie case of obviousness is lacking is the complete and total failure of the Examiner to identify any evidence of a reason for using the product of Holm, Cederblad, or D'Acchioli in the arrangement of Welchel. Evidentiary support for a reason for the combination is undoubtedly still a requirement of a prima facie case of obviousness. See Memorandum of Margaret A. Focarino, Deputy Commissioner for Patent Operations, May 3, 2007 ("in formulating a rejection under 35 U.S.C. 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed . . . ") (emphasis added). The mere incantation of a passage from "KSR v. Teleflex" by the Examiner cannot sustain the rejection, where a reason for combining the teachings of the references is lacking (and in fact is contraindicated). Indeed, the Supreme Court's decision in KSR actually supports the Applicant's position, since it recognizes that the present Examiner's effort to "merely demonstrat[e] that each of its elements was, independently, known in the prior art" is insufficient to establish obviousness. See KSR Int'l Co. v. Teleflex, Inc., supra at 1741 (holding that in formulating a rejection under 35 U.S.C. 103(a), it was "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" and further stating that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art... .") (emphasis added).

As for the obviousness rejection of claim 25, Applicant stated in the prior response that Welchel does not disclose any third layer of bicomponent fibers, period, and indeed specifically teaches that one of the layers must consist solely of cellulosic fibers in order to be absorbent (see col. 4, lines 36-39). The Examiner disagrees, citing to two passages and Figure 2 of Welchel. The first cited passage at col. 5, lines 35-65, states in its entirety as follows:

Another embodiment of the composite is shown in FIG. 2 of the drawings. In this configuration, the composite 100 is formed from three layers of material including the same top sheet 102 and a bottom sheet 104 as in FIG. 1 and a second top sheet 105 disposed on a side 107 of the top sheet 102 which is opposed to the bottom sheet 104. As with the previous embodiment, the top sheet 102 is formed from a layer of matrix fibers, the bottom sheet 104 is formed from a layer of absorbent fibers and the second top sheet 105 is formed from a fibrous

nonwoven web which may include matrix fibers. An advantageous embodiment is where the top sheet 102 and the second top sheet 105 contain bicomponent matrix fibers so that they can be subjected to a heating process to bond the two sheets together. The fibers of the top sheet 102 and the bottom sheet 104 are entangled together in the same manner as described above. As with the embodiment shown in FIG. 1 and described above, due to the entangling of the fibers from the bottom sheet 104 into the top sheet 102, region 106 will contain essentially matrix fibers. Region 108 will be a mixture of absorbent fibers and nonwoven matrix fibers and region 110 will contain essentially absorbent fibers. In addition, there will be yet a third region 114 formed by the second top sheet 105 which will also contain essentially matrix fibers. These matrix fibers may be the same as or different than the matrix fibers in region 106 or they may be a blend of matrix fibers.

(emphasis added). Nowhere does this passage describe any third layer of bicomponent fibers, nor does it even state that the top sheets 102, 105 comprise both thermoplastic polymer staple fibers and thermoplastic bicomponent fibers. The same is true of the passage at column 7, lines 4-21 (which actually prefaces a statement that teaches away from wet processing using bicomponent fibers at col. 7, lines 36-40: "The best method . . . when using bicomponent staple fibers is to use a through-air bonder such as is described above with respect to the bicomponent spunbond web formation process."). Figure 2 does nothing to supplement this teaching in the Examiner's favor, either.

The Examiner cites to Holm, Cederblad, or D'Acchioli in making further obviousness rejections of claims 6-8, 16-18, 19, 20, 23, and 24 in combination with Welchel, Insley, Bansal, Malaney or Lickfield, as previously applied in rejecting these same claims as "obvious." However, these rejections are simply the same rejections made elsewhere without reference to Holm, Cederblad, or D'Acchioli, and simply restated under a different heading. Holm, Cederblad, or D'Acchioli are never mentioned for any reason in the Examiner's formulation of a position regarding *prima facie* obviousness of these claims. Since Applicant addressed and overcame the primary rejections made, and Holm, Cederblad, or D'Acchioli do not in any way supply the missing teachings (a point with which the Examiner seems to agree, since these references are not at all used as evidence in the rejections), it is believed that a *prima facie* case of obviousness is lacking for the reasons provided above, and withdrawal of these rejections in order.

With respect to claim 26, it reads on a liner/insulator comprising first and second individual layers of wet processed mats comprising thermoplastic polymer staple fibers and

thermoplastic bicomponent fibers of different fiber formulations. A first face of the first layer contacts a second face of the second layer. The Examiner rejects this claim as "anticipated" by Welchel, but as noted above this reference does not disclose the claimed wet processed layers with contacting faces. Even if accepted as true, the Examiner's contention that an air laid mat is "only slightly different" from the claimed wet processed mat supports that the anticipation rejection is improper, because it confirms that Welchel does not per se discose the exact same invention being claimed.

In rejecting method claim 27 as "obvious," the Examiner merely states that:

Oleszczuk and Lickfield each disclose that the layers may be thermally bonded ...

It is noted that Welchel also discloses that the thermoplastic bicomponent staple fiber nonwoven layers (105 and 102) are to be directly bonded (45-48).

Respectfully, the Examiner nowhere establishes any teaching or suggestion in these references of the steps of: (1) wet processing thermoplastic polymer staple fibers and thermoplastic bicomponent fibers to form a first layer of wet processed mat having a first face; (2) wet processing thermoplastic polymer staple fibers and thermoplastic bicomponent fibers to form a second layer of wet processed mat having a different fiber formulation than said first layer, said second layer having a second face; and (3) applying sufficient heat and pressure to the first and second layers of mat to bond said first layer and said second layer directly together and form the liner/insulator. Since all claim limitations are thus not taught or suggested by the cited prior art, a prima facie case of obviousness is lacking, and allowance of this claim is in order.

Upon careful review and reconsideration, it is believed the Examiner will agree with the proposition that all claims are directed to patentable subject matter. Accordingly, the issuance of a formal Notice of Allowance is earnestly solicited. Any fees required in connection with this submission may be debited to Deposit Account 50-0568.

Respectfully submitted,

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2/4/08

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